

THE BRAIN: OUR SENSE OF SELF		
Rhode Island Grade Span Expectations: Science- Grades 6, 7, 8		
Grade 6		
Lesson	Standard	GSEs
2, 4	LS1 (5-6) SAE+FAF –2a	Students demonstrate understanding of structure and function-survival requirements by describing structures or behaviors that help organisms survive in their environment (e.g., defense, obtaining nutrients, reproduction, and eliminating waste).
3, 4	LS1 (5-6) FAF – 4a	Students demonstrate understanding of differentiation by identifying cells as the building blocks of organisms.
2, 4	LS4 (5-6) INQ- 10b	Students demonstrate an understanding of human body systems by identifying the abiotic factors (e.g., drugs, altitude, weather, pollution) that have an effect on human body systems.
4	LS4 (5-6) INQ- 10c	Students demonstrate an understanding patterns of human health/disease by identifying the biotic (e.g., microbes, parasites, food availability, aging process) and abiotic (e.g., radiation, toxic materials, carcinogens) factors that cause disease and affect human health.
2, 4	LS4 (5-6) INQ+POC-11a	Students demonstrate an understanding of human heredity by differentiating between inherited and acquired traits.
Grades 7 & 8		
Lesson	Standard	GSEs
3	LS1 (7-8) SAE+FAF –2a	Students demonstrate understanding of structure and function-survival requirements by explaining how the cell, as the basic unit of life, has the same survival needs as an organism (i.e., obtain energy, grow, eliminate waste, reproduce, provide for defense).
1, 2, 3, 4	LS1 (7-8) SAE+FAF –2c	Students demonstrate understanding of structure and function-survival requirements by observing, describing and charting the growth, motion, responses of living organisms.
2, 3, 4	LS1 (7-8) FAF – 4a	Students demonstrate understanding of differentiation by explaining that specialized cells perform specialized functions. (e.g., muscle cells contract, nerve cells transmit impulses, skin cells provide protection).
3, 4	LS1 (7-8) FAF – 4b	Students demonstrate understanding of differentiation by comparing individual cells of tissues and recognizing the similarities of cells and how they work together to perform specific functions.
3, 4	LS1 (7-8) FAF – 4c	Students demonstrate understanding of differentiation by explaining how each type of cell, tissue, and organ has a distinct structure and set of functions that serve the organism as a whole.
4	LS3 (7-8) POC- 9a	Students demonstrate an understanding of Natural Selection/ evolution by explaining that genetic variations/traits of organisms are passed on through reproduction and random genetic changes.
2, 4	LS3 (7-8) POC- 9c	Students demonstrate an understanding of Natural Selection/ evolution by differentiating between acquired and inherited characteristics and giving examples of each.

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

2, 4	LS4 (7-8) INQ-10b	Students demonstrate an understanding of human body systems by predicting and explaining the effect of abiotic factors (e.g., drugs, environmental conditions) on human body systems.
4	LS4 (7-8) INQ-10c	Students demonstrate an understanding of human body systems by researching and reporting on how biotic (e.g., microbes, parasites, food availability, aging process) and abiotic (e.g., radiation, toxic materials, carcinogens) factors cause disease and affect human health.
2, 4	LS4 (7-8) INQ+POC-11a	Students demonstrate an understanding of human heredity by recognizing that characteristics of an organism result from inherited traits of one or more genes from the parents and others result from interactions with the environment.

Rhode Island Grade Span Expectations: Mathematics – Grades 6, 7, 8

Grade 6

Lesson	Standard	GSEs
4	M(N&O)–6–3	Demonstrates conceptual understanding of mathematical operations by adding and subtracting positive fractions and integers; and multiplying and dividing fractions and decimals.
4	M(N&O)–6–4	Accurately solves problems involving single or multiple operations on fractions (proper, improper, and mixed), or decimals; and addition or subtraction of integers; percent of a whole; or problems involving greatest common factor or least common multiple.
4	M(N&O)–6–6	Uses a variety of mental computation strategies to solve problems.
4	M(F&A)–6–1	Identifies and extends to specific cases a variety of patterns (linear and nonlinear) represented in models, tables, sequences, graphs, or in problem situations; or writes a rule in words or symbols for finding specific cases of a linear relationship; or writes a rule in words or symbols for finding specific cases of a nonlinear relationship; and writes an expression or equation using words or symbols to express the generalization of a linear relationship (e.g., twice the term number plus 1 or $2n + 1$).
4	M(DSP)–6–1	Interprets a given representation (circle graphs, line graphs, or stem-and-leaf plots) to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
4	M(DSP)–6–3	Organizes and displays data using tables, line graphs, or stem-and-leaf plots to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
4	M(DSP)–6–6	In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, experimentation) to collect the data (numerical or categorical) necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the question or hypothesis being tested, and when appropriate makes predictions; and asks new questions and makes connections to real world situations.
4	M(PRP)–8–1	Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: use problem-solving strategies appropriately and effectively for a given situation, determine, collect and organize the relevant information needed to solve real-world problems, apply integrated problem-solving strategies to solve problems in the physical, natural and social sciences, and in pure mathematics, and use technology when appropriate to solve problems, reflect on solutions and the problem-

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

		solving process for a given situation and refine strategies as needed.
4	M(PRP)–8–2	Students will use mathematical reasoning and proof and be able to: draw logical conclusions and make generalizations using deductive and inductive reasoning, formulate, test, and justify mathematical conjectures and arguments, construct and determine the validity of a mathematical argument or a solution, and apply mathematical reasoning skills in other disciplines.
4	M(CCR)–8–1	Students will communicate their understanding of mathematics and be able to: articulate ideas clearly and logically in both written and oral form, present, share, explain, and justify thinking with others and build upon the ideas of others to solve problems, use mathematical symbols and notation, and formulate questions, conjectures, definitions, and generalizations about data, information, and problem situations.
Grade 7		
Lesson	Standard	GSEs
4	M(N&O)–7–3	Demonstrates conceptual understanding of operations with integers and whole number exponents (where the base is a whole number) using models, diagrams, or explanations.
4	M(N&O)–7–4	Accurately solves problems involving the addition or subtraction of integers.
4	M(N&O)–7–6	Uses a variety of mental computation strategies to solve problems.
4	M(F&A)–7–1	Identifies and extends to specific cases a variety of patterns (linear and nonlinear) represented in models, tables, sequences, graphs, or in problem situations; and generalizes a linear relationship using words and symbols; generalizes a linear relationship to find a specific case; or writes an expression or equation using words or symbols to express the generalization of a nonlinear relationship.
4	M(DSP)–7–1	Interprets a given representation (circle graphs, scatter plots that represent discrete linear relationships, or histograms) to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
4	M(DSP)–7–3	Organizes and displays data using tables, line graphs, scatter plots, and circle graphs to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
4	M(DSP)–7–3	Identifies or describes representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)–7–1.
4	M(DSP)–7–6	In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, experimentation) to collect the data (numerical or categorical) necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the question or hypothesis being tested while considering the limitations that could affect interpretations; and when appropriate makes predictions; and asks new questions and makes connections to real world situations.
4	M(PRP)–8–1	Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: use problem-solving strategies appropriately and effectively for a given situation, determine, collect and organize the relevant information needed to solve real-world problems, apply integrated problem-solving strategies to solve problems in the physical, natural and social sciences, and in pure mathematics, and use technology when appropriate to solve problems, reflect on solutions and the problem-solving process for a given situation and refine strategies as needed.

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

4	M(PRP)–8–2	Students will use mathematical reasoning and proof and be able to: draw logical conclusions and make generalizations using deductive and inductive reasoning, formulate, test, and justify mathematical conjectures and arguments, construct and determine the validity of a mathematical argument or a solution, and apply mathematical reasoning skills in other disciplines.
4	M(CCR)–8–1	Students will communicate their understanding of mathematics and be able to: articulate ideas clearly and logically in both written and oral form, present, share, explain, and justify thinking with others and build upon the ideas of others to solve problems, use mathematical symbols and notation, and formulate questions, conjectures, definitions, and generalizations about data, information, and problem situations.
Grade 8		
Lesson	Standard	GSEs
4	M(N&O)–8–6	Uses a variety of mental computation strategies to solve problems.
4	M(F&A)–8–1	Identifies and extends to specific cases a variety of patterns (linear and nonlinear) represented in models, tables, sequences, graphs, or in problem situations; and generalizes a linear relationship (non-recursive explicit equation); generalizes a linear relationship to find a specific case; generalizes a nonlinear relationship using words or symbols; or generalizes a common nonlinear relationship to find a specific case.
4	M(DSP)–8–1	Interprets a given representation (line graphs, scatter plots, histograms, or box-and-whisker plots) to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
4	M(DSP)–8–3	Organizes and displays data using scatter plots to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems; or identifies representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)–8–1.
4	M(DSP)–8–6	In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, experimentation) to collect the data (numerical or categorical) necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the question or hypothesis being tested while considering the limitations that could affect interpretations; and when appropriate makes predictions; and asks new questions and makes connections to real world situations.
4	M(PRP)–8–1	Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: use problem-solving strategies appropriately and effectively for a given situation, determine, collect and organize the relevant information needed to solve real-world problems, apply integrated problem-solving strategies to solve problems in the physical, natural and social sciences, and in pure mathematics, and use technology when appropriate to solve problems, reflect on solutions and the problem-solving process for a given situation and refine strategies as needed.
4	M(PRP)–8–2	Students will use mathematical reasoning and proof and be able to: draw logical conclusions and make generalizations using deductive and inductive reasoning, formulate, test, and justify mathematical conjectures and arguments, construct and determine the validity of a mathematical argument or a solution, and apply mathematical reasoning skills in other disciplines.
4	M(CCR)–8–1	Students will communicate their understanding of mathematics and be able to: articulate ideas clearly and logically in both written and oral form, present, share, explain, and justify thinking with others and build upon the

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

		ideas of others to solve problems, use mathematical symbols and notation, and formulate questions, conjectures, definitions, and generalizations about data, information, and problem situations.
Rhode Island Grade Level Expectations: Reading – Grades 6, 7, 8		
Lesson	Standard	GLEs
3, 4, 5	R—6—2.1 R—7—2.1 R—8—2.1	Use strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes and base words, <i>common roots</i> , or <i>word origins</i> (7 & 8 only); or context clues; or other resources, such as dictionaries, glossaries, thesauruses; or prior knowledge).
3, 4, 5	R—6—3.2 R—7—3.2 R—8—3.2	Select appropriate words or explaining the use of words in context, including content specific vocabulary, words with multiple meanings, or precise vocabulary.
3, 4, 5	R—6—7.1 R—7—7.1 R—8—7.1	Obtain information from text features (e.g., table of contents, glossary, index, transition words /phrases, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations [6], transitional devices [7 & 8]).
3, 4, 5	R—6—7.2 R—7—7.2 R—8—7.2	Use information from the text to: answer questions related to main/central ideas or key details (6); answer questions, to state the main/central ideas, or to provide supporting details (7 & 8).
1, 3, 4, 5	R—6—7.3 R—7—7.3 R—8—7.3	Organize information to show understanding (e.g., representing main/central ideas or details within text through charting, mapping, paraphrasing, summarizing, comparing/contrasting [6 & 7], or outlining [8]).
3, 4, 5	R—6—7.4 R—7—7.4 R—8—7.4	Generate questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information.
All lessons	R—6—8.1 R—7—8.1 R—8—8.1	Connect information within a text or across texts (6). Explain connections about information within a text, across texts, or to related ideas (7 & 8).
2, 3, 4, 5	R—6—8.2 R—7—8.2 R—8—8.2	Synthesize (6) and evaluate (7 & 8) information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas).
3, 4, 5	R—6—8.5 R—7—8.5 R—8—8.5	Make inferences about causes or effects.
3, 4, 5	R—6—13 R—7—13 R—8—13	Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text.
3, 4, 5	R—6—15.2 R—7—15.2	Research by reading multiple sources (including print and non-print texts) to report information, to solve a problem, or to make a decision, or to formulate a judgment (6), or to support a thesis (7 & 8) by evaluating

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

	R—8—15.2	information presented, in terms of relevance.
2, 3, 4, 5	R—6—15.3 R—7—15.3 R—8—15.3	Research by reading multiple sources (including print and non-print texts) to report information, to solve a problem, or to make a decision, or to formulate a judgment (6), or to support a thesis (7 & 8) by gathering, organizing, and interpreting the information.
3, 4, 5	R—6—15.4 R—7—15.4 R—8—15.4	Research by reading multiple sources (including print and non-print texts) to report information, to solve a problem, or to make a decision, or to formulate a judgment (6), or to support a thesis (7 & 8) by using evidence to support conclusions.
All lessons	R—6—17.2 R—7—17.2 R—8—17.2	Participate in in-depth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others.

Rhode Island Grade Level Expectations: Writing – Grades 6, 7, 8

Lesson	Standard	GLEs
3, 4, 5	W—6—1.1 W—7—1.1 W—8—1.1	Students demonstrate command of the structures of sentences, paragraphs, and text by using varied sentence length and structure to enhance meaning (e.g., including phrases and clauses).
3, 4, 5	W—6—1.2 W—7—1.2 W—8—1.2	Students demonstrate command of the structures of sentences, paragraphs, and text by using the paragraph form: indenting, main idea, supporting details.
3, 4, 5	W—6—1.4 W—7—1.4 W—8—1.4	Students demonstrate command of the structures of sentences, paragraphs, and text by applying a format and text structure appropriate to the purpose of the writing.
3, 4, 5	W—6—2.1 W—7—2.1 W—8—2.1	In response to literary or informational text, students show understanding of plot /ideas/concepts by selecting appropriate information to set context/background (6) and summarizing key ideas to set context. (7 & 8).
3, 4, 5	W—6—2.3 W—7—2.3 W—8—2.3	In response to literary or informational text, students show understanding of plot /ideas/concepts by connecting what has been read (plot/ideas/concepts) to prior knowledge or other texts, by referring to relevant ideas (6); connecting what has been read (plot/ideas/concepts) to prior knowledge, other texts, or the broader world of ideas, by referring to and explaining relevant ideas (7 & 8).
3, 4, 5	W—6—3.1 W—7—3.1 W—8—3.1	In response to literary or informational text, students make and support analytical judgments about text by stating and maintaining a focus (purpose), a firm judgment, or point of view when responding to a given question.
3, 4, 5	W—6—3.3 W—7—3.3 W—8—3.3	In response to literary or informational text, students make and support analytical judgments about text by using specific details and references to text or relevant citations to support focus or judgment.
3, 4, 5	W—6—3.4	In response to literary or informational text, students make and support analytical judgments about text by

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

	W—7—3.4 W—8—3.4	organizing ideas, using transition words/phrases and writing a conclusion that provides closure (6 & 7); organizing ideas, using transitional words/phrases and drawing a conclusion by synthesizing information (e.g., demonstrate a connection to the broader world of ideas), (8)
1, 3, 4, 5	W—6—6.1 W—7—6.1 W—8—6.1	In informational writing, students organize ideas/concepts by using an organizational text structure appropriate to focus/controlling idea.
1, 3, 4, 5	W—6—7.2 W—7—7.2 W—8—7.2	In informational writing, students organize ideas/concepts by stating and maintaining a focus/controlling idea.
1, 3, 4, 5	W—7—7.3 W—8—7.3	In informational writing, students organize ideas/concepts by writing with a sense of audience, when appropriate.
1, 3, 4, 5	W—6—8.1 W—7—8.1 W—8—8.1	In informational writing, students demonstrate use of a range of elaboration strategies by including facts and details relevant to focus/controlling idea, and excluding extraneous information.
1, 3, 4, 5	W—6—8.2 W—7—8.2 W—8—8.2	In informational writing, students demonstrate use of a range of elaboration strategies by including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, use of visual images.
1, 3, 4, 5	W—6—8.3 W—7—8.3 W—8—8.3	In informational writing, students demonstrate use of a range of elaboration strategies by addressing readers' concerns (including counterarguments – in persuasive writing; addressing potential problems –in procedures; providing context –in reports).
1, 3, 4, 5	W—6—9.1 W—7—9.1 W—8—9.1	In independent writing, students demonstrate command of appropriate English conventions by applying rules of standard English usage to correct grammatical errors.
1, 3, 4, 5	W—6—9.5 W—7—9.5 W—8—9.5	In independent writing, students demonstrate command of appropriate English conventions by correctly spelling grade-appropriate, high frequency words, including homonyms and homophones and applying syllables and affix spelling patterns/rules (6); correctly spelling grade-appropriate, high frequency words and applying conventional spelling patterns/rules (7); applying conventional and word derivative spelling patterns/rules.
1, 3, 4, 5	W—6—11.2 W—7—11.2 W—8—11.2	Demonstrates the habit of writing extensively by sharing thoughts, observations, or impressions.
3, 4, 5	W—6—11.4 W—7—11.4 W—8—11.4	Demonstrates the habit of writing extensively by writing in a variety of genres.
1, 3, 4, 5	W—8—14.4	In reflective writing, students explore and share thoughts, observations, and impressions by using a range of elaboration techniques (i.e., questioning, comparing, connecting, interpreting, analyzing, or describing) to establish a focus.
All lessons	OC—6—1.1 OC—7—1.1	In oral communication, students demonstrate interactive listening by following verbal instructions to perform specific tasks, to answer questions, or to solve problems.

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

	OC—8—1.1	
All lessons	OC—6—1.2 OC—7—1.2 OC—8—1.2	In oral communication, students demonstrate interactive listening by summarizing, paraphrasing, questioning, or contributing to information presented.
All lessons	OC—6—1.4 OC—7—1.4 OC—8—1.4	In oral communication, students demonstrate interactive listening by participating in large and small group discussions showing respect for a range of individual ideas.
2, 3, 4, 5	OC—6—1.5 OC—7—1.5 OC—8—1.5	In oral communication, students demonstrate interactive listening by reaching consensus to solve a problem, make a decision, or achieve a goal.
All lessons	OC—6—2.1 OC—7—2.1 OC—8—2.1	In oral communication, students make oral presentations by demonstrating skills and logical organization and language use in interpersonal, small group and public exchanges (e.g., discussions, interviews) (6); exhibiting logical organization and language use, appropriate to audience, context, and purpose (7&8).
Rhode Island Instructional Outcomes: Health Education – Grades 5 — 8		
Lesson	Standard	Instructional Goal
3, 4, 5	PSL—1.3 NUT—1.3	Explain how health is influenced by the interaction of body systems (PSL). Explain how proper nutrition affects the interaction of body systems (NUT).
3, 4, 5	PSL—2.2 NUT—2.2 SAP—2.3	Utilize/Access resources from home, school, and community that provide valid personal health information (PSL); nutrition information (NUT); substance abuse prevention information (SAP).
4	PSL—3.1 MH—3.1 INJ—3.1 SAP—3.1 NUT—3.1	Explain the importance of assuming responsibility: for physical activity, hygiene, and care of the body (PSL); behaviors (MH, INJ, SAP); eating behaviors (NUT);
4	PSL—3.3 MH—3.3 INJ—3.1 DCP—3.1 SAP—3.2	Distinguish between safe and risky or harmful behaviors.
4, 5	PSL—4.3 INJ—4.3 NUT—4.3 SAP—4.3	Analyze the influence of technology on: personal health (PSL); personal and family injury prevention behaviors (INJ); nutrition (NUT); substance abuse (SAP).

RHODE ISLAND ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

All lessons	MH—5.4 INJ—5.4 DCP—5.2 SAP—5.4	Communicate care, consideration and respect of self and others.
5	PSL—6.1 INJ—6.1 NUT—6.3 DCP—6.2	Predict how decisions regarding risk-taking behaviors (PSL, INJ) / nutrition behaviors (NUT) / exposure to disease agents and lifestyle (DCP) have consequences for self and others.
5	MH—7.1 NUT—7.1 SAP—7.1	Discuss accurate information and express opinions about: mental and emotional health issues (MH); nutrition issues (NUT); substance abuse issues (SAP).